APPLICATION FOR APPROVAL OF EMISSIONS AND EMISSION INVENTORY QUESTIONNAIRE

Grand Isle Shipyard, Inc.
Galliano, LA

September 2006

ENVIRO-SENSE, INC.

Grand Isle Shipyard, Inc.
Galliano, LA
Air Permit Application

Introduction

Grand Isle Shipyard (GIS) is located at 18838 Hwy. 3235 near Galliano in Lafourche Parish. Maps of the facility are located in Appendix A. This is an initial permit application for this facility. This facility is a small source of air emissions.

Process Description

GIS constructs offshore structures and equipment that are used by the oil and gas industry. Air emissions generated during the construction process are typically from painting, general solvent use, and sandblasting. These activities occur in vented warehouses and outdoors. As such, they are all area sources.

GIS requests to be permitted to use 12,000 gallons of paints and solvent per year and 1,400 tons of sand per year. Material Safety Data Sheets for the paints and solvents are kept onsite and are available upon request.

Control Equipment

Since all emissions sources are fugitive, there is no process control equipment at the facility. All emission reductions are achieved through work practice standards and material selection. GIS uses low VOC paints when available and encourages employees to use good housekeeping practices. The housekeeping plan can be found in Appendix B.

Insignificant Activities

This facility has one 500 gallon diesel tank. The vapor pressure of diesel is less than 0.5 psia. As such, this tank is an insignificant source of emissions.

501.B.5.A.3

Emission Summary

Pollutant	Proposed Permit Limit (tpy)
PM_{10}	9.18
VOC	22.04
Total TAPs	15.48

The paint, thinner, and solvent air emissions were calculated by doing material balances on each product, utilizing the manufacturer's data on each. A one hundred percent evaporation rate was assumed for the volatile constituents. A material balance on the solid constituents, accounting for transfer and containment efficiencies, was used for the solids in the paint.

The sandblasting emissions were estimated using CARB emission factors for abrasive blasting. Containment efficiencies were applied on top of the factors. Please see Appendix C for a spreadsheet of the calculations

Requested Specific Condition

Much of GIS's work is dictated by their client's specifications. Every effort was made to accurately account for the air emissions at this site. However, the paints, thinner, and solvents used at the site are subject to change with each job. As such, flexible permit limits are being requested to keep the company competitive while ensuring compliance with applicable state and federal regulations. Section 925 of LAC33.III states that a facility may propose a mass emission rate for any pollutant equal to the sum of all sources within a facility for approval by the administrative authority. The facility will set emission rates for each proposed source within the facility that when accumulated will demonstrate compliance with the mass emission rate. As such, AOQ proposes the following for the paints, thinners, and solvents:

1. Facility will abide by the limits set forth in LAC33.III.2123.C-11.
2. Facility will use no more than ~~7,200 gallons of~~ paint and thinner, and 4,900 gallons of solvent each year. Usage of each will be recorded each month.
3. VOC emissions from paints, thinners, and solvents used will not exceed 22 tpy; total TAP emissions from paints, thinners, and solvents will not exceed 16 tpy. VOC and TAP emissions will be calculated monthly.
4. The facility shall use materials which contain only the TAPs listed in the following table.

adds to 12,100 gal/yr

Pollutant	CAS No.	Class	Requested Emission Rate (tpy)
Barium (and compounds)	7440-39-3	II	< 1 ✓
Benzene	71-43-2	I	<0.1 ✓
n-Butanol	71-36-3	III	<5.5 ✓
Dibutyl Phthalate	84-74-2	II	<0.19 ✓
Ethylbenzene	100-41-4	II	<9 ✓
Formaldehyde	50-00-0	I	<0.1 ✓
Glycol Ethers	109-86-4	II	<0.5 ✓
HDI Isocynote	822-06-0	III	< 1 ✓

$\frac{1\ ton}{yr} \left| \frac{1\ yr}{3640\ hr} \right| \frac{2000\ lb}{1\ ton}$

(hexamethyl diisocyanate)

n-Hexane	110-54-3	III	<6.5 ✓	
Methanol	67-56-1	III	<9 ✓	4.945 PPH
MEK	78-93-3	III	<9 ✓	
MIBK	108-10-1	III	<7.5 ✓	4.121 PPH
Naphthalene	91-20-3	II	< 1 ✓	0.549 PPH
Phenol	108-95-2	II	<0.7 ✓	0.385 PPH
Styrene	100-42-5	II	< 1 ✓	0.549PPH
Toluene	108-88-3	III	<9 ✓	4.945PPH
Trichloroethylene	79-01-6	II	< 1 ✓	0.549PPH
Xylene	1330-20-7	II	<9 ✓	4.945 PPH
Zinc	7440-66-6	II	< 1 ✓	0.549 PPH
Total TAP			**16**	

Please see Appendix E for compliance status with the limits set forth in LAC33.III.2123.C-11.

MACT

This facility is a minor source of air emissions. Hence, it is not subject to either the Louisiana Shipbuilding MACT or to NESHAP Subpart MMMM.

Application

APPLICATION TRANSMITTAL FORM

State Agency: Department of Environmental Quality Date: September 30, 2006

Please submit two copies of this form with the application.

PART A
Administrative Information

Facility Name: Grand Isle Shipyard

City: Galliano Parish: Lafourche

State: LA Zip: 70354 Telephone: 985-475-5238

Facility Contact Person: Rhett Monier

Facility Mailing Address: P.O. Box 820
Galliano, LA
70354

State Permit Number: _____ Primary SIC Code: 3479

Secondary SIC Code(s): _____

Place an X under the appropriate description:

New Permit	Renewal	Modification Major/Significant	Modification Minor	Supplemental Information
☑	☐	☐	☐	☐

PART B
Technical Information

Place an X next to the appropriate information:

- ☐ CO Source
- ☑ PM10 Source
- ☑ VOC Source
- ☑ 112(b) Pollutants
- ☐ NOx Source
- ☐ SO2 Source
- ☐ Lead Source
- ☐ BIF Facility

- ☐ PSD Source
- ☐ Nonattainment Area
- ☐ Acid Rain Source
- ☐ Chlorofluorocarbons
- ☐ Compliance Schedule
- ☐ Federal Facility
- ☐ General Permit Source
- ☐ Combustion Source

Number of units subject to Enhanced Monitoring (Part 64)? None

Within 50 miles of Class I area? NO

Within 50 miles of Indian country? YES

Applicable Part 60 NSPS subpart? (please list) N/A

Applicable Part 61 NESHAP subpart? (please list) N/A

Applicable Part 63 MACT category? (please list) N/A

Case by case MACT? N/A

Distance to nearest Class I Area Greater than 100 Miles.

Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, LA 70821-4313
(225) 219 - 3181

LOUISIANA
Application for Approval of Emissions of Air Pollutants

1 **Please type or print**

Company Name: **Grand Isle Shipyard** ☐ Owner ☑ Operator

Parent Company (if Company Name given above is a division):

Plant Name: **GIS Galliano**

Nearest Town: **Galliano** Parish: **Lafourche**

Agency Interest Number: **116837** CDS Number:

For Permits Division Use Only

2. PROPOSED ACTION Give a brief description of proposed action. Attach flow diagrams, illustrations required to convey an understanding

Submit an initial application for an oilfield fabrication contractor.

3. OWNERSHIP AND USE OF ADJOINING PROPERTY ☐ Map or description attached.

Distance to (km): Texas: Arkansas: Mississippi: Alabama:

Latitude of Facility Front Gate: 29° 24' 33"

Longitude of Facility Front Gate: 90° 17' 2"

This facility is located at 18838 Hwy. 3235 between Galliano and Golden Meadow. The property is one acre wide and 33 acres deep. It is surrounded by agricultural property.

4. TYPE OF APPLICATION

☐ Part 70 ☑ State ☐ General ☐ Renewal (Part 70)

☐ Entirely New Facility ☐ Reconciliation

☑ Previously grandfathered, exempted, or unpermitted ☐ Modification or expansion of existing facility

Project fee calculation: Enter fee number, permit type, production capacity/thruput, and fee amount pursuant to LAC 33:III.Chap.2

Fee No.	Type	Capacity	Amount
1722	Small Source Permit		$713.00

5. KEY DATES

Estimated Date construction will commence: Estimated Date operation will commence:

NL ompleted Emission Inventory Questionnaire (EIQ) that reflects projected emissions from your facility as a whole after the project described in this application becomes operational must be submitted with this application. If you are submitting an application that is for modification or expansion of an existing facility, the Department of Environmental Quality must also have an EIQ for existing emissions. If you have already submitted an EIQ that is on file with the Department, it may fulfill this requirement.

6. EMISSIONS BY POLLUTANT

List each emission from all sources. Group by pollutant PM10, SO_2, NO_x, CO, VOC Toxic Air Pollutants (TAPs), non-VOC TAPs, Other VOC, non-VOC/non-TAPs, and Total VOC.

Grouping by SARA VOC and SARA non-VOC is optional. Show total tons/year for each pollutant. Consult Instructions.

Emission Point ID Number	Pollutant (list individual TAPs & non-criteria hydrocarbons separately)	Permitted Emission Rate Before tons/yr	Permitted Emission Rate After tons/yr
1-2006	Particulate Matter		0.43
3-2006	Particulate Matter		8.75
	Total PM		**9.18**
1-2006	VOCs		10.77
2-2006	VOCs		11.28
	Total VOC		**22.04**
1-2006	Xylene		2.51
1-2006	Toluene		0.05
1-2006	Ethylbenzene		0.55
1-2006	Naphthalene		0.11
1-2006	MEK		0.04
1-2006	MIBK		0.37
1-2006	Methanol		0.02
1-2006	Butanol		0.01
1-2006	HDI Isocynate		0.00
1-2006	Zinc		0.42
1-2006	Barium		0.02
2-2006	Toluene		7.66
2-2006	Methanol		3.74
	Total TAPs		**15.48**

7. HISTORY OF PERMITTED EMISSIONS

List each emission level from facility permits (for unit specific permits, the history should be for the unit of concern only). Group by permit and show totals.

Include as the last entry, the total emissions following the proposed change, entering the project name for "Permit Number" and date of submittal for "Date permit issued." Consult instructions.

Permit Number	Date Permit Issued	Pollutant	Permitted Emission Rate (tons/yr)

EMISSION POINT LIST

GIS Galliano
Grand Isle Shipyard
Galliano, Lafourche Parish

Emission Point No.	Description	Operating Rate (Max) or Tank Capacity	Operating Schedule Hours Day	Days Week	Weeks Year
1-2006	Paint and Thinner Emissions	7160 Gal/Yr	10	7	52
2-2006	Solvent Emissions	4900 Gal/Yr	10	7	52
3-2006	Sandblasting Emissions	1400 Tons/Yr	10	7	52

Insignificant Activities List					
	Diesel Tank	500 gal	24	7	52

GIS Galliano
Grand Isle Shipyard
Galliano, Lafourche Parish

Emission Point No.	Permitted emission rates are listed in tons per year					
	PM_{10}	SO_2	NO_x	CO	VOC*	Other
1-2006	0.43				10.77	
2-2006					11.28	
3-2006	8.75					
TOTALS:	***9.18***				***22.04***	

*VOC TAP Speciation:

Xylene	2.511	TPY
Toluene	7.707	TPY
Ethylbenzene	0.546	TPY
Naphthalene	0.110	TPY
MEK	0.042	TPY
MIBK	0.370	TPY
Methanol	3.754	TPY
Butanol	0.010	TPY
HDI Isocynate	0.000	TPY
TOTALS:	***15.05***	***TPY***

*Other VOC:

non-VOC TAP Speciation:

Zinc	**0.418**	**TPY**
Barium	**0.016**	**TPY**

General Condition XVII Activities List:

8. Title VI Stratospheric Ozone

A. Does your facility have any air conditioners or refrigeration equipment that uses CFCs, HCFCs or other ozone-depleting substances? X Yes _____ No

B. Does the air conditioner or refrigeration equipment contain a refigeration charge greater than 100 pounds? _____ Yes X No

C. Do your facility personnel maintain, service, repair, or dispose of any motor vehicle air conditioners (MVACs) or appliances? _____ Yes X No

D. Cite and describe which Title VI requirements are applicable to your facility in the Regulatory Applicability section of the application.

9. LAC 33:I:1701 Requirements

A. Does the company or owner have federal or state environmental permits identical to, or of a similar nature to, the permit for which you are applying in other states?

☑ Permits in Louisiana. List permit numbers: LAD985225440

☐ Permits in other states (list states): No

B. Do you owe any outstanding fees or final penalties to the Department?

☐ Yes ☑ No

If yes, please explain. _____

C. Is your company a corporation or limited liability company? ☑ Yes ☐ No

If yes, attach a copy of your company's Certification of Registration and/or Certificate of Good Standing from the Secretary of State.

10. EMISSION POINT LIST AND ANNUAL EMISSION RATE TABLE

Complete the following Emission Point List with the emission point number and description for each emission point. Include also, the associated operating rate or tank capacity and the operating schedule. List all Insignificant Activities under the appropriate heading. For sources claimed to be insignificant based on size or emission rate (LAC 33:III.501.B.5.A), information must be supplied to verify each claim.

Complete the following Annual Emission Rate Table by emission point ID or identifier with the annual emission rates for each appropriate pollutant. Include speciation data as available. Calculate totals for each pollutant and speciation data. List all General Condition XVII Activities under the appropriate heading. Emissions must be listed for each activity. Do not include emissions from General Condition XVII Activities in the totals.

11. APPLICABLE REGULATIONS, AIR POLLUTION CONTROL MEASURES, MONITORING, AND RECORD KEEPING

List in the following Tables 1-5, by emission point ID or identifier, state and federal pollution abatement programs and describe how compliance with these programs will be achieved, including test methods that will be used.

GIS Galliano
Grand Isle Shipyard
Galliano, Lafourche Parish

TABLE 1: APPLICABLE LOUISIANA AND FEDERAL AIR QUALITY REQUIREMENTS

Emission Point No. or Identifier	40 CFR Part 60			40 CFR Part 61			40 CFR Part 63			40 CFR	LAC 33:III.Chapter						
	NSPS	NSPS	NSPS	NESHAP	NESHAP	NESHAP	NESHAP	NESHAP	NESHAP	Part 68 CAP	Chapter 13	Chapter 2113	Chapter 2123	Chapter	Chapter	Chapter	
1-2006												X	X				
2-2006																	
3-2006											X						

Key: X - applicable requirement O - exemption criteria met blank - does not apply

GIS Galliano
Grand Isle Shipyard
Galliano, Lafourche Parish

TABLE 2: STATE AND FEDERAL AIR QUALITY REQUIREMENTS

Emission Source	Applicable requirement	Compliance Method/Provision	Notes
Facility	Housekeeping [LAC33.III.2113]	Best practical housekeeping and maintenance practices shall	
		be maintained at the highest possible standards to reduce	
		the quantity of organic compound emissions. Emission of	
		organic compounds shall be reduced wherever feasible.	
1-2006	Organic Solvents [LAC33.III.2123]	Surface coating operations shall not exceed the emission	
		limits set forth under this rule.	
3-2006	Control of Fugitive Emissions	All reasonable precautions shall be taken to prevent dust from	
	[LAC33.III.1305]	becoming airborne. This shall include using adequate	
		containment methods during sandblasting operations.	

GIS Galliano
Grand Isle Shipyard
Galliano, Lafourche Parish

TABLE 3: COMPLIANCE MONITORING DEVICES OR ACTIVITIES

Emission Point No. or Identifier	Applicable Compliance Requirement	Monitoring, Reporting & Recordkeeping (MMR) Method/Provision	Notes

TABLE 4: COMPLIANCE TESTING REQUIREMENTS

Emission Point No. or Identifier	Applicable Compliance Test Method	Criteria Being Tested	Notes

GIS Galliano
Grand Isle Shipyard
Galliano, Lafourche Parish

TABLE 5: EQUIPMENT LIST

Emission Point No. or Identifier	Description	Notes

6. PERSONNEL

a. Manager of facility on location at plant site

Name	Mike Cox		
Title	Galliano Yard Manager		
Company	Grand Isle Shipyard		
Suite, Mail Drop, or Division			
Street or P.O. Box	P.O. Box 820		
City Galliano	State LA	Zip	70354
Business Phone	985-475-5238		

b. Contact at site about air pollution control

Name	Rhett Monier		
Title	HSE Supervisor		
Company	Grand Isle Shipyard		
Suite, Mail Drop, or Division			
Street or P.O. Box	P.O. Box 820		
City Galliano	State LA	Zip	703
Business Phone	985-475-5238		

c. Headquarters or other off-site contact

Name		
Title		
Company		
Suite, Mail Drop, or Division		
Street or P.O. Box		
City	State	Zip
Business Phone		

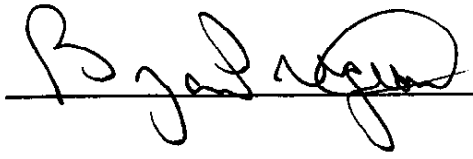
d. Person who prepared this report

☐ a. ☐ b. ☐ c. ☑ other

Name	Leah Roger		
Title	President		
Company	Enviro-Sense, Inc.		
Suite, Mail Drop, or Division			
Street or P.O. Box	609 South State Street		
City Abbeville	State LA	Zip	7051
Business Phone	337-898-2823		

CERTIFICATION: I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Emission Inventory Questionnaire (EIQ) for Air Pollutants, including all attachments thereto, are true, accurate, and complete.

Signature of responsible official(s) (See 40 CFR 70.2)



Date

11/8/06

Emission Inventory Questionnaire

Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, LA 70821-4313
(225) 219 - 3181

LOUISIANA

Emission Inventory Questionnaire (EIQ) for Air Pollutants

Please type or print

Company Name: **Grand Isle Shipyard** ☐ Owner ☑ Operator

Parent Company (if Company Name given above is a division):

Plant Name: **GIS Galliano**

Nearest Town: **Galliano** Parish: **Lafourche**

Agency Interest Number: **116837** CDS Number:

For Permits Division Use Only

2. TYPE OF EIQ

◉ a. ONLY presently existing emissions

○ b. *BOTH* proposed additional emissions associated with an emission application for a permit, variance, or exemption *AND* presently existing emissions expected to be still existing after facility or modification described in application becomes operational

3. CONFIDENTIALITY

If you are requesting confidentiality for all information, except air pollutant emission rates, check box. ☐

(You must attach justification for confidentiality request)

4. ORGANIZATIONAL ACTIVITIES

Days of week normally NOT operating: ☐ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

Days per year facility typically operates: 312

Peak Production season (list months):

operating schedule: ☐ 24 hours OR specify number of hours: 10

Approximate number of employees at this location: 90

Details of facilities that, as a whole, operate intermittently:

Ownership: ☑ corporation, partnership, or sole proprietorship ☐ regulated utility ☐ municipal government ☐ state government ☐ federal government ☐ other, specify:

Industrial category - indicate Standard Industrial Classification (SIC) Code(s) that apply to your facility:

3479

Description of operation with emphasis on air pollution sources. Use attachments if more space is needed.

This facility fabricates equipment used by the oil and gas industry. Sources of emissions include painting, general solvent use, and sandblasting. Facility uses electric air compressors and welding machines.

Insignificant activities include a 500 gallon diesel tank.

5. SUMMARY OF EMISSIONS FOR ENTIRE PLANT AS A WHOLE

Rates given should correspond in most cases to the sum of the individual average rates of the point sources listed on the ·le Point Source/Area Source forms.

Pollutant Type	Emission Rate (lbs/hr)	Emission Rate (tons/yr)
a. Particulate (solids or liquids)	5.05	9.18
b. Sulfur Dioxide		
c. Nitrogen Dioxide		
d. Carbon Monoxide		
e. Volatile Organic Compounds (total)	12.11	22.04
f. Toxics compounds regulated under LAC 33:III.Chapter 51	8.51	15.48
g. Facility Methane / Ethane		

10. COMPLIANCE WITH FEDERAL REQUIREMENTS

Statement for Applicable Requirements for Which the Source is in Compliance

Based on the information and belief, formed after reasonable inquiry, the company and facility referenced in this application is in compliance with and will continue to comply with all applicable requirements pertaining to the sources covered by the permit application, as outlined in Tables 1 and 2 in the permit application.

For requirements promulgated as of the date of this certification with compliance dates effected during the permit terms, I further certify that the company and facility referenced in this application will comply with such requirements on a timely basis and will continue to comply with such requirements.

CERTIFICATION: I certify, under provisions in Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Application for Approval of Emissions of Air Pollutants, including all attachments thereto, are truly accurate and complete.

CERTIFICATION: I certify that the engineering calculations, drawings, and design are true and accurate to the best of my knowledge.

11. PERSONNEL

a. Responsible Officer

Name	Bryan Pregeant				
Title	Corporate Secretary				
Company	Grand Isle Shipyard, Inc.				
Suite, Mail Drop, or Division					
Street or P.O. Box	P.O. Box 820				
City	Galliano	State	LA	Zip	70354
Business Phone	985-475-5238				

b. Professional Engineer

Name	Leah Roger				
Title	President				
Company	Enviro-Sense, Inc.				
Suite, Mail Drop, or Division					
Street or P.O. Box	609 South State Street				
City	Abbeville	State	LA	Zip	70510
Business Phone	337-898-2823				

Signature of responsible officer(s) (See 40 CFR 70.2)
Date 11/08/06
Date

Signature of Professional Engineer	
Date	
Registration No.	State of Registration

Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, LA 70821-4313
(225) 219 - 3181

LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE
Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Company Name	Plant location and name	Date of Submittal
Grand Isle Shipyard	**18838 Hwy. 3235, Galliano, LA 70354**	**September 30, 2006**

Source ID Number	Descriptive name of the equipment served by this stack or vent	Approximate location of stack or vent
→ **1-2006**	**Paint and Thinner Emissions**	UTM Zone no. ☑ 15 ☐ 16 Horizontal Coordinate: **763338** mE Vertical Coordinate: **3256291** mN

Stack and Discharge Physical Characteristics ☐ Changed	Stack Height (ft) above grade	Diameter (ft) or stack discharge area (ft²) ○ ft ◉ ft²	Stack Gas Exit Temperature (°F)	Stack gas flow at process conditions (ft³/min)	Stack gas exit Velocity (ft/sec)	Date of Construction/Modification	Operating Rate (Max) or tank capacity
							7160 Gal/Yr

Fuel		Type of fuel used and heat input (See Instructions)	
		Type of Fuel	Heat Input (MMBTU/hr)
	a		
	b		
	c		

Operating Characteristics	Percent of annual throughput of pollutants through this emission point				Normal operating time of this point			Normal Operating Rate
	Dec-Feb	Mar - May	Jun - Aug	Sep - Nov	hrs/day	days/wk	wk/yr	
	25%	25%	25%	25%	10	7	52	**7160 Gal/Yr**

Air Pollutant Specific Information

Pollutant	Control Equipment		Emission Rates			Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
	Code	Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (ton/yr)			
Particulate Matter (PM_{10})			**0.24**	**0.24**	**0.43**	**2**	**Add**	gr/std ft³
Sulfur Dioxide (SO_2)								ppm by vol
Nitrogen Dioxide (NO_x)								ppm by vol
Carbon Monoxide (CO)								ppm by vol
Total VOC (including those listed below)			**5.92**	**5.92**	**10.77**	**2**	**Add**	ppm by vol
Xylene			**1.38**	**1.38**	**2.51**	**2**	**Add**	ppm by vol
Toluene			**0.03**	**0.03**	**0.05**	**2**	**Add**	ppm by vol
Ethylbenzene			**0.30**	**0.30**	**0.55**	**2**	**Add**	ppm by vol
Naphthalene			**0.06**	**0.06**	**0.11**	**2**	**Add**	ppm by vol
MEK			**0.02**	**0.02**	**0.04**	**2**	**Add**	ppm by vol
MIBK			**0.20**	**0.20**	**0.37**	**2**	**Add**	ppm by vol
Methanol			**0.01**	**0.01**	**0.02**	**2**	**Add**	ppm by vol
Butanol			**0.01**	**0.01**	**0.01**	**2**	**Add**	ppm by vol
HDI Isocynate			**0.00**	**0.00**	**0.00**	**2**	**Add**	ppm by vol

Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, LA 70821-4313
(225) 219 - 3181

LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE

Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Company Name	Plant location and name	Date of Submittal
Grand Isle Shipyard	**18838 Hwy. 3235, Galliano, LA 70354**	**September 30, 2006**

Source ID Number	Descriptive name of the equipment served by this stack or vent	Approximate location of stack or vent
2-2006	**Solvent Emissions**	UTM Zone no. ☑ 15 ☐ 16 Horizontal Coordinate: **763338** mE Vertical Coordinate: **3256291** mN

Stack and Discharge Physical Characteristics ☐ Changed	Stack Height (ft) above grade	Diameter (ft) or stack discharge area (ft²) ○ ft ◉ ft²	Stack Gas Exit Temperature (°F)	Stack gas flow at process conditions (ft³/min)	Stack gas exit Velocity (ft/sec)	Date of Construction/Modification	Operating Rate (Max) or tank capacity
							4900 Gal/Yr

Fuel	Type of fuel used and heat input (See Instructions)		Operating Characteristics	Percent of annual throughput of pollutants through this emission point				Normal operating time of this point			Normal Operating Rate
	Type of Fuel	Heat Input (MMBTU/hr)		Dec-Feb	Mar - May	Jun - Aug	Sep - Nov	hrs/day	days/wk	wk/yr	
a				25%	25%	25%	25%	10	7	52	4900 Gal/Yr
b											
c											

Air Pollutant Specific Information

Pollutant	Control Equipment		Emission Rates			Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
	Code	Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (ton/yr)			
Particulate Matter (PM_{10})								gr/std ft³
Sulfur Dioxide (SO_2)								ppm by vol
Nitrogen Dioxide (NO_x)								ppm by vol
Carbon Monoxide (CO)								ppm by vol
Total VOC (including those listed below)			**6.20**	**6.20**	**11.28**	**2**	**Add**	ppm by vol
Toluene			**4.21**	**4.21**	**7.66**	**2**	**Add**	ppm by vol
Methanol			**2.05**	**2.05**	**3.74**	**2**	**Add**	ppm by vol

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LOUISIANA

SINGLE POINT/AREA/VOLUME SOURCE
Emission Inventory Questionnaire (EIQ)
for Air Pollutants

Company Name	Plant location and name	Date of Submittal
Grand Isle Shipyard	**18838 Hwy. 3235, Galliano, LA 70354**	**September 30, 2006**

Source ID Number	Descriptive name of the equipment served by this stack or vent	Approximate location of stack or vent
3-2006	**Sandblasting Emissions**	UTM Zone no. ☑ 15 ☐ 16 — Horizontal Coordinate: **763338** mE — Vertical Coordinate: **3256291** mN

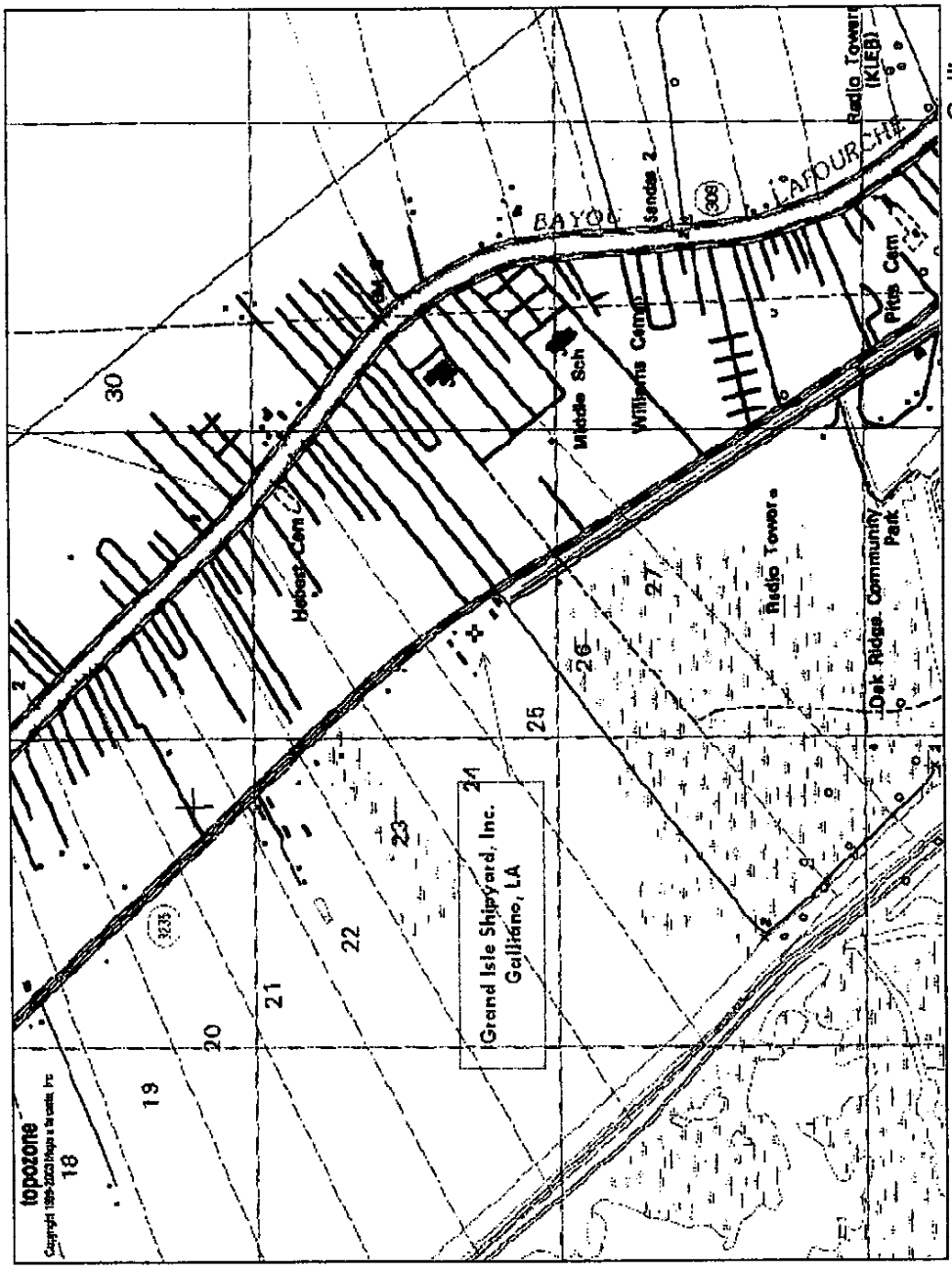
Stack and Discharge Physical Characteristics ☐ Changed	Stack Height (ft) above grade	Diameter (ft) or stack discharge area (ft^2) ◉ ft ○ ft^2	Stack Gas Exit Temperature (°F)	Stack gas flow at process conditions (ft^3/min)	Stack gas exit Velocity (ft/sec)	Date of Construction/Modification	Operating Rate (Max) or tank capacity
							1400 Tons/Yr

Fuel		Type of fuel used and heat input (See Instructions)		Operating Characteristics	Percent of annual throughput of pollutants through this emission point				Normal operating time of this point			Normal Operating Rate
		Type of Fuel	Heat Input (MMBTU/hr)		Dec-Feb	Mar - May	Jun - Aug	Sep - Nov	hrs/day	days/wk	wk/yr	
	a				**25%**	**25%**	**25%**	**25%**	**10**	**7**	**52**	**1400 Tons/Yr**
	b											
	c											

Air Pollutant Specific Information

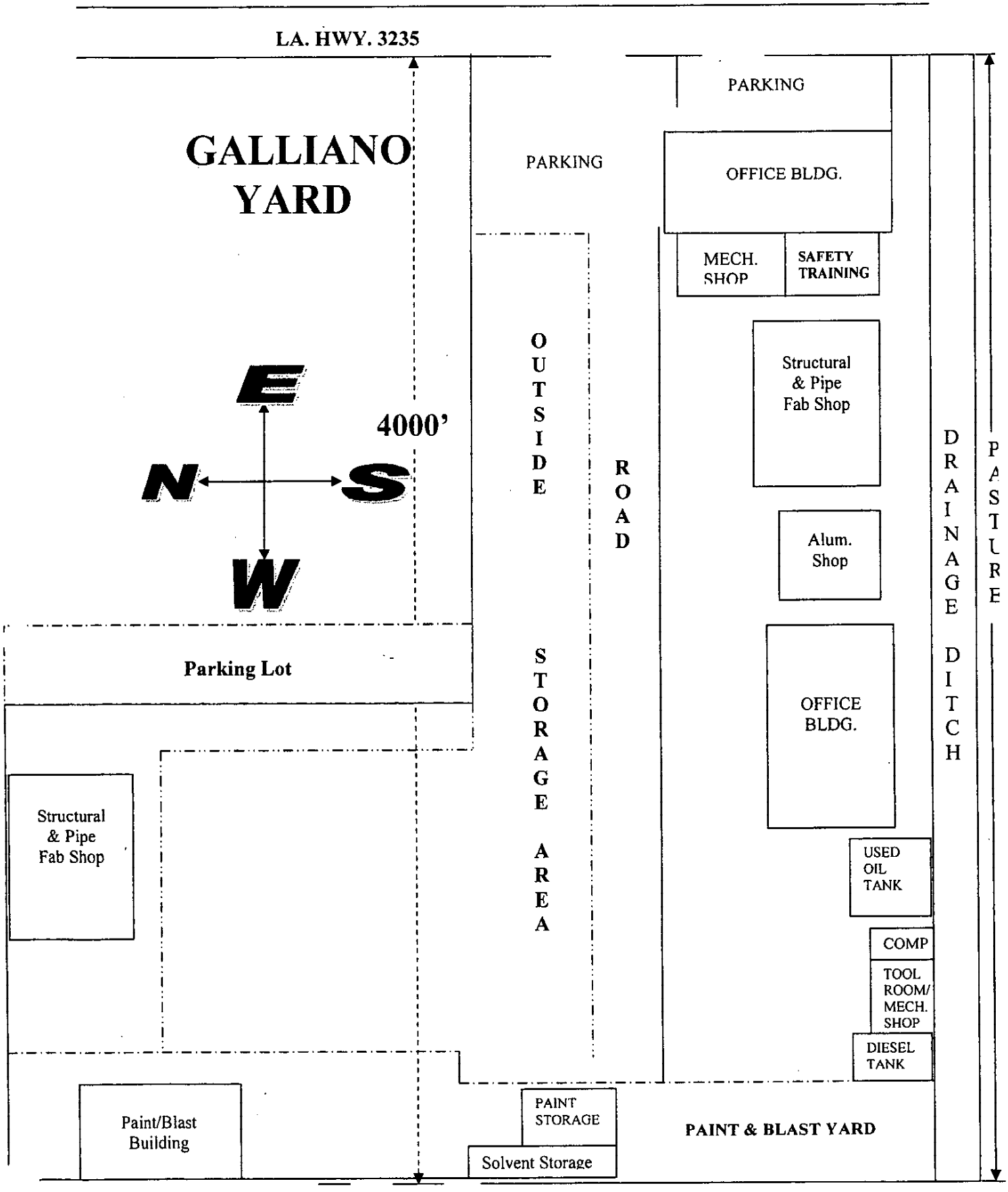
Pollutant	Control Equipment		Emission Rates			Emission Estimation Method	Add, Change, or Delete Code	Concentration in gases exiting at stack
	Code	Efficiency	Average (lbs/hr)	Maximum (lbs/hr)	Annual (ton/yr)			
Particulate Matter (PM_{10})			**4.81**	**4.81**	**8.75**	**3**	**Add**	gr/std ft^3
Sulfur Dioxide (SO_2)								ppm by vol
Nitrogen Dioxide (NO_x)								ppm by vol
Carbon Monoxide (CO)								ppm by vol
Total VOC (including those listed below)								ppm by vol
								ppm by vol
								ppm by vol
								ppm by vol
								ppm by vol
								ppm by vol
								ppm by vol
								ppm by vol
								ppm by vol

Figure 1
Topographical Map



GRAND ISLE SHIPYARD, INC.

Figure 2
Site Map


LA. HWY. 3235
GALLIANO YARD
PARKING
PARKING
OFFICE BLDG.
MECH. SHOP
SAFETY TRAINING
Structural & Pipe Fab Shop
E
N
S
W
4000'
OUTSIDE
ROAD
Alum. Shop
DRAINAGE DITCH
PASTURE
Parking Lot
STORAGE AREA
OFFICE BLDG.
Structural & Pipe Fab Shop
USED OIL TANK
COMP
TOOL ROOM/ MECH. SHOP
DIESEL TANK
Paint/Blast Building
PAINT STORAGE
Solvent Storage
PAINT & BLAST YARD

Appendix B
Housekeeping Plan

Grand Isle Shipyard, Inc.
Housekeeping Plan

Grand Isle Shipyard (GIS) has developed and instituted a written plan to prevent or minimize volatile organic (VOC) emissions at its Galliano facility. This plan satisfies the Louisiana Department of Environmental Quality's (LDEQ) requirement for the development of a written housekeeping plan.

Guidelines outlined in this plan should be reviewed with appropriate employees to assist personnel in practicing "good housekeeping and maintenance" to reduce the quantity of organic compound emissions from the facility.

Copies of this plan should be prominently posted throughout the facility. An additional copy of it should be placed in the facility permit file where it can be readily accessed by an LDEQ inspector.

VOCs are defined as hydrocarbons heavier than methane and ethane. Some typical examples of VOC emissions are the vapors that escape from an open can of paint or solvent, etc. Since our corporate policy is to have a minimal impact on the environment, we have defined "good housekeeping practices" to include the following:

1. Keep all containers that store volatile materials tightly sealed when not in use.
2. Prevent spills wherever possible. Should one occur, clean it up immediately. Eliminate or minimize evaporation from spills.
3. Store dirty rags used to clean up spills in a closed container until they can be properly disposed.
4. Store volatile waste materials in sealed containers.

Grand Isle Shipyard, Inc.
Galliano, LA
Air Emission Estimations

SANDBLASTING EMISSIONS

Sandblasting is done in outdoors within a screened area, during an 10 hour period per day, seven days per week. 3640 hrs/yr

annual amount sand used: 1400 tons
containment efficiency: 50 %
emission factor: 25 lb/ton sand blasted *
* CARB Emission Factor

PM_{10}: 8.75 tons/yr
4.81 lb/hr

Insignificant Point Source (LAC33.III.501.b-5)

This facility has a 500 gallon diesel tank onsite to fuel equipment. This tank falls below the 10,000 gallon threshold for organic liquids with a vapor pressure less than 0.5 psia. Diesel has a vapor pressure of 0.009 psia.

Grand Isle Shipy Galliano Yard
Air Emission Esti... ...ions

Yearly Emissions

Paint		Amount	Density	VOC	Xylene	Toluene	Ethylbenzene	Naphthalene	MEK	MIBK	Methanol	Butanol	Hexane	Phenol	Formaldehyde	HDI Isocynate	Styrene	Dibutyl Phthalate	Zinc	Barium	Lead	Total TAP
Manufacturer	Name	gal	lbs/gal	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
Ameron	370	60	13.18	150.25	28.07	0.00	0.00	0.00	83.03	73.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	184.41
Ameron	385	1600	11.80	3681.60	113.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	113.28
Ameron	385 PA	420	11.50	966.00	30.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.72	0.00	0.00	37.15
Ameron	400	820	12.20	1150.46	690.28	0.00	153.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.74	0.00	876.08
Ameron	450 HS	1600	9.66	3863.20	448.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	448.13
Ameron	68 HS	1200	27.60	33355.06	483.55	0.00	122.54	0.00	0.00	665.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	664.88	0.00	0.00	1936.69
Ameron	78 HB	40	12.90	81.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ameron	861 Accelerator	140	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ameron	866 M Accelerator	50	8.14	406.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ameron	D-9	260	23.00	1066.00	0.00	89.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	143.07	0.00	0.00	232.77
Carboline	134 HG	10	10.60	21.73	4.37	8.73	4.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	17.84
Carboline	CZ-11	40	23.50	160.74	17.86	0.00	0.00	0.00	0.00	0.00	35.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.05	0.00	0.00	69.63
International	52 Interzinc	15	21.03	42.00	15.77	0.00	0.00	0.00	0.00	0.00	0.00	18.71	0.00	0.00	0.00	0.00	0.00	0.00	6.05	0.00	0.00	40.53
International	475HS Intergard	10	17.50	14.60	14.32	0.00	8.75	0.00	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.15
Paint Totals:		6265		14960.13	1846.06	98.43	288.72	0.00	83.03	739.02	35.72	20.79	0.00	0.00	0.00	0.37	0.00	0.00	836.78	32.74	0.00	3981.66
THINNERS																						
Ameron	#101	40	7.50	300.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00
Ameron	#65	525	7.30	3832.50	3066.00	0.00	766.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3832.50
Ameron	#924	280	7.50	2100.00	0.00	0.00	0.00	189.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	189.00
International	GTA 7	30	6.51	195.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
International	GTA 415	20	7.28	145.60	109.20	0.00	36.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	145.60
Thinner Totals:		895		6573.40	3175.20	0.00	802.90	219.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4197.10
SOLVENTS																						
Grow Group	7119 (MEK)	4900	6.90	22554.70	0.00	15315.93	0.00	0.00	0.00	0.00	7472.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22787.94
Solvent Totals:		4900		22554.70	0.00	15315.93	0.00	0.00	0.00	0.00	7472.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22787.94
TOTAL:		12060 gal		44088.2308	5021.2563	15414.3644	1091.62	219	83.03	739.0192	7507.73	20.78869	0	0	0	0.371	0	0	836.7757	32.73809	0	30966.70
			(TPY)	(22.04)	(2.51)	(7.71)	(0.55)	(0.11)	(0.04)	(0.37)	(3.75)	(0.01)	(0)	(0)	(0)	(0)	(0)	(0)	(0.42)	(0.02)	(0)	(15.48)

Paint + thinner
= 7160 gallons

Paint
~~X~~ VOC Less than total TAP

309670 gal

Solvent
6.196 lb/hr = 11.277 tons/yr

Paint + thinner
$\frac{21533.531\text{lbs}}{7160\text{gal}} \times \frac{7160\text{gal}}{1\text{yr}} \times \frac{1\text{yr}}{3640\text{hr}} = 5.92\ \frac{\text{lbs}}{\text{hr}} \times \frac{1\text{ton}}{2000\text{lb}} \times \frac{3640\text{hr}}{1\text{yr}}$
= 10.77 tons/yr

Appendix D
Certificate of Good Standing

Louisiana Secretary of State
Detailed Record

Charter/Organization ID: 20202730D

Name: GRAND ISLE SHIPYARD INC.

Type Entity: Business Corporation

Status: Active

Annual Report Status: In Good Standing

Last Report Filed on 04/06/2006

Mailing Address: P.O. BOX 820, GALLIANO, LA 70354

Domicile Address: 18838 HWY. 3235, GALLIANO, LA 70354

File Date: 05/06/1948

Registered Agent (Appointed 5/16/1983): RICHARD PREGEANT, MINNICH LN. & LOUISIANA AVE., GRAND ISLE, LA 70358

Registered Agent (Appointed 8/08/1972): CLYDE W. PREGEANT, JR., MINNICH LN. & LOUISIANA AVE., GRAND ISLE, LA 70358

Registered Agent (Appointed 8/08/1972): ROBERT C. PREGEANT, MINNICH LN. & LOUISIANA AVE., GRAND ISLE, LA 70358

President: ROBERT PREGEANT, 114 PLANTATION DRIVE, CUT OFF, LA 70345

Treasurer: RICHARD PREGEANT, 203 CHATEAU DRIVE, LOCKPORT, LA 70374

Secretary: BRYAN PREGEANT, 130 WEST 104TH STREET, CUT OFF, LA 70345

Amendments on File
DISCLOSURE OF OWNERSHIP (01/16/2004)

Grand Isle Shipyard
Galliano Yard
LAC33.III.2123 Compliance

Paint		Amount	Density	VOC Density	2123.C-11 Limit	Allowable VOC	Actual VOC
Manufacturer	Name	gal/yr	lbs/gal	lbs/gal	lbs/gal	lbs/yr	lbs/yr
Ameron	370	60	13.18	2.5	3.5	210	150.3
Ameron	385	1600	11.80	2.3	3.5	5600	3681.6
Ameron	385 PA	420	11.50	2.3	5.41	2272.2	966.0
Ameron	400	820	12.20	1.4	3.5	2870	1150.5
Ameron	450 HS	1600	9.66	2.4	3.5	5600	3863.2
Ameron	68 HS	1200	27.60	2.8	5.41	6492	3355.1
Ameron	78 HB	40	12.90	2.0	3.5	140	81.7
Ameron	861 Accelerator	140	8.10	0.0	3.5	490	0.0
Ameron	866 M Accelerator	50	8.14	8.1	3.5	175	407.0
Ameron	D-9	260	23.00	4.1	5.41	1406.6	1066.0
Carboline	134 HG	10	10.60	2.2	3.5	35	21.7
Carboline	CZ-11	40	23.50	4.0	5.41	216.4	160.7
International	52 Interzinc	15	21.03	2.8	5.41	81.15	42.0
International	475HS Intergard	10	17.50	1.5	3.5	35	14.6
Ameron	#101	40	7.50	7.5	NA	NA	300.0
Ameron	#65	525	7.30	7.3	NA	NA	3832.5
Ameron	#924	280	7.50	7.5	NA	NA	2100.0
International	GTA 7	30	6.51	6.5	NA	NA	195.3
International	GTA 415	20	7.28	7.3	NA	NA	145.6
	TOTAL:	**7,160 gallons**				**25,623**	**21,534**
						lb/yr	**lb/yr**

Since the total VOC from the paint and thinners is less the allowable VOC per 2123.C-11, the facility is in compliance with the Organic Solvent Subchapter.

Traci Green

From: Leah Roger [leahroger@bellsouth.net]
Sent: Tuesday, February 27, 2007 3:20 PM
To: Traci Green
Subject: GIS, Galliano

Traci,

GIS does conduct welding activities on site; the fuming emissions from this activity will be roughly 0.5 tons of PM10 per year. As such, welding is insignificant per LAC.33.III.501.b.5.d-a. Sandblasting is conducted inside a blast shed. There is a 5000 gallon used oil tank onsite. This tank is insignificant per LAC.33.III.501.b.5.a-1 since the vapor pressure of lube oil is less than 0.5 psia (approximately 0.005 psia).

Galliano yard recently named a new Division Manager. Jeffery DeRosia has replaced Mike Cox.

If you have any more questions or need additional information, please feel free to contact me.

Kindest Regards,

Leah

Leah B. Roger, P.E. - President
Enviro-Sense, Inc.
609 South State Street
Abbeville, LA 70510
Home/Office (337) 898-2823
Cell (337) 652-2832
leahroger@bellsouth.net

Traci Green

From: Leah Roger [leahroger@bellsouth.net]
Sent: Tuesday, February 27, 2007 1:38 PM
To: Traci Green
Attachments: CARB Factor.jpg

Traci,

After much cleaning of the cob webs out of my little brain, I have finally figured out how the factor I use was derived. On the attached sheet is a portion of an article that was faxed to me from the CARB in 5-94. I use the Bay Area District factor of 1.25% by weight of PM emissions for blasted sand. I apologize for citing it as the CARB factor but suppose I did it because the article was faxed to me from them. This factor has been accepted on many applications and it quite close to that stipulated by AP-42 recently.

I am waiting to hear about the tank and welding. I will forward that info to you when I receive it.

Regards,

Leah

Leah B. Roger, P.E. - President
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C. EMISSIONS AND THEIR CONTROL

1. Emissions

a. Particulate Matter

The particulate matter emitted into the atmosphere is the most significant air pollution problem associated with abrasive blasting. These particles come from both the abrasive and from surface material such as paint, steel, or concrete.

The majority--80 to 90 percent--of unconfined abrasive blasting operations in California occur in three major air basins: the Bay Area, the South Coast, and San Diego. Of this, 50 percent can probably be attributed to the shipping industry. It takes an average of 2,000 to 3,000 tons of abrasive to clean a large ship while a large bridge may take 500 tons. On the average it usually takes 4 to 5 pounds of abrasive to clean each square foot of metal surface area.

In order to determine the magnitude of the particulate matter emissions from abrasive blasting, the ARB staff in 1980 sent a questionnaire to producers and followed up with telephone calls. Because not all producers could supply needed information, several sources were used as checks on the final estimate. The final estimate is that about 150,000 tons of abrasives are used each year in California for dry unconfined blasting operations.

Different districts have arrived at various estimates of emissions from sandblasting operations based on the amount of abrasive used. The San Diego County Air Pollution Control District and the Bay Area Air Quality Management District use 1.25 percent by weight of the blasted abrasive for sand, 0.50 percent for slag and 0.38 percent for steel, while the South Coast Air Quality Management District uses 4.1 percent by weight of blasted abrasive for sand, 1.0 percent for slag and 0.7 for steel shot.